ABSTRACT

A combination direct/indirect liquid heating heater comprises a tower, a cold water inlet conduit causing water to fall in said tower, a hot water reservoir in communication with said tower, a gas burner, a hot gas inlet manifold encased in the reservoir and, by means of a vertical section, directing the gas into the tower. The hot gas manifold vertical section is capped by a cap impeding water flow into the manifold. Also, the vertical section comprises a baffle impeding gas flow from the tower into the reservoir.